



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,043	11/06/2003	Hideki Hashizume	02410346AA	7421
30743	7590	08/24/2005	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C.			CHIEM, DINH D	
11491 SUNSET HILLS ROAD			ART UNIT	
SUITE 340			PAPER NUMBER	
RESTON, VA 20190			2883	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/702,043

Applicant(s)

HASHIZUME ET AL.

Examiner

Erin D. Chiem

Art Unit

2883



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-9 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) 4, 10 and 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 4, 10 and 16-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/3/04 5/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Invention I and Species B drawn to Figure 3B in the reply filed on 29 July 2005 is acknowledged. Currently, claims 1-3, 5-9, and 11-15 are pending and claims 4, 10, and 16-20 are withdrawn from consideration.

Claim Objections

2. Claim 12 is objected to because of the following informalities: on line 6 of the claim, the recitation "the optical fiber" lacks antecedent basis. Perhaps Applicant wishes to recite " the *first* optical fiber." Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-7, 11-12, and 15 rejected under 35 U.S.C. 102(b) as being anticipated by Li et al. (US Patent 6,084,994). Li teaches in Figures 2, 5, and 6 a wavelength selective optical device comprising a first optical fiber 102 in which optical signals with a plurality of multiplexed wavelengths is propagated; a first graded index rod lens 120 having a first end surface thereof on which a light emitted from an end surface of the first optical fiber is incident, and a second end

Art Unit: 2883

surface thereof from which a parallel light beam is emitted; an optical filter 130 arranged to face to the second end of the surface of the first graded index rod lens so that the parallel light beam emitted from the first graded index rod lens is incident on the optical filter; a second graded index rod lens 140 having a first end surface thereof facing to the first optical fiber; and a second optical fiber 160 arranged on a side of a second end surface of the second graded index rod lens, wherein the refractive index distribution constant of the rod lens is adjusted such that a wavelength range of the light transmitted from the optical filter is tuned within a desired range (col. 4, lines 57-59). The Examiner, respectfully, point out that the shift of refractive index distribution constant to the desired range is the purpose of employing an optical filter such as one taught by Li.

Regarding claims 5, 11, and 15 the selection of one from a plurality of graded index rod lens groups having various different refractive index distribution constants is a mere fact of one of ordinary skill in the art when embarking on selecting the correct lens to use, the limitation is comparable to one of ordinary skill in the art to open a catalog of optical lens having various refractive index distribution constants to select from.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 8-9, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Cearns et al. (US Patent 5,943,149).

Li teaches in Figures 2, 5, and 6 a wavelength selective optical device comprising a first optical fiber 102 in which optical signals with a plurality of multiplexed wavelengths is propagated; a first graded index rod lens 120 having a first end surface thereof on which a light emitted from an end surface of the first optical fiber is incident, and a second end surface thereof from which a parallel light beam is emitted; an optical filter 130 formed directly on to the second end of the surface of the first graded index rod lens so that the parallel light beam emitted from the first graded index rod lens is incident on the optical filter; a second graded index rod lens 140 having a first end surface thereof facing to the first optical fiber; and a second optical fiber 160 arranged on a side of a second end surface of the second graded index rod lens, wherein the refractive index distribution constant of the rod lens is adjusted such that a wavelength range of the light transmitted from the optical filter is tuned within a desired range (col. 4, lines 57-59).

However Li does not explicitly teach the optical filter is a multi-layered optical filter.

Cearns teaches a wavelength selective optical device comprising a lens 310 and directly in contact with a multilayer dielectric filter 305 and the multilayer dielectric filter is in direct contact with another lens 310 for the purpose of easy manufacturing and allows the optical arrangement to occupy less space.

Since Li and Cearns are both from the same field of endeavor, the purpose disclosed by Cearns would have been recognized in the pertinent art of Li.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ multi-layered optical filter versus a separately independent filter such as a crystal, by directly apply the multi-layered optical filter onto the second end surface of the rod lens, similar to the optical filter directly contacted to the rod lens taught by Li.

Art Unit: 2883

The motivation for employing multi-layered optical filter is for the purpose of easy manufacturing and allows the optical arrangement to occupy less space.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin D Chiem
Examiner
Art Unit 2883



Frank G. Font
Supervisory Primary Examiner
Technology Center 2800